

SENSORY INTEGRATION THERAPY

Sensory-based therapies are increasingly used by therapists in treatment of children with developmental and behavioural disorders. Sensory-based therapies involve activities that are believed to organise the sensory system by providing vestibular, proprioceptive, auditory, and tactile inputs. Brushes, swings, balls, and other specially designed therapeutic or recreational equipment are used to provide these inputs.



Difficulty tolerating or processing sensory information is a characteristic that may be seen in many developmental behavioural disorders, including autism spectrum disorders, attention-deficit/hyperactivity disorder, developmental coordination disorders, and childhood anxiety disorders.

Sensory integration is the ability to process, immediately and simultaneously, the many different sensory messages that result from even the simplest action. It has been found that children with autism frequently have problems in dealing with complex sensory stimuli and that they may be sensitive to particular kinds of stimuli such as noise or texture (Howlin, 1997). Children with autism appear to have difficulties modulating their response to sensory input and maintaining optimal arousal and focused attention (Prior & Ozonoff, 2006). Poor sensory processing may contribute to the development of maladaptive behaviours and difficulties with social relating, which are common in children with autism (Schaaf & Miller, 2005).



Sensory processing involves the brain's ability to organise and make sense of different kinds of sensation entering the brain at the same time. Sensory processing underlies the development of all motor and social skills and the ability to learn and perform complex adaptive behaviours. It relies on effective functioning of the brainstem, which lies between the spinal cord and higher centres of the brain. The brainstem contains an important filtering system which prioritizes incoming



information to determine if it should be noticed or disregarded. It is also a converging and relay station for sensations coming in through the different senses. We are all aware of the senses of sight, hearing, taste and smell, but sensory processing involves three additional specialized sensory systems which are very powerful and influence how effectively we detect and make sense of information to enable us to feel safe and secure, to direct and sustain our attention, to move without fear, and to use our bodies automatically to perform the myriad of motor tasks we take for granted throughout a normal daily routine. When there is a problem in one or all of these systems the individual gets distracted by information that should be taken for granted, connecting with whatever is happening right here, right now.



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Information from: American Academy of Pediatrics, available at

<http://pediatrics.aappublications.org/content/early/2012/05/23/peds.2012-0876>

The Australian Government, Dep. Of Health and Ageing, available at

<http://www.health.gov.au/internet/publications/publishing.nsf/Content/mental-child-autrev-toc~mental-child-autrev-sens~mental-child-autrev-sens-int>
and <http://www.sensoryprocessing.com/>